AMENDMENTS TO THE CLAIMS

Claim 1. (currently amended) ~~An~~ A transductionally and transcriptionally modified adenoviral vector with improved efficacy at the target site and reduced transgene expression at the non-target site ~~that mediates gene delivery~~ *in vivo* comprising:

(i) a targeting component that targets said vector to specific target cells, wherein said targeting component comprises a bi-specific antibody conjugate linking a Fab fragment of an anti-Ad5 knob antibody with an anti-angiotensin converting enzyme antibody, wherein ~~molecule that binds to the knob protein of~~ said ~~adenoviral vector and an~~ angiotensin converting enzyme molecule is expressed on said target cells; and

(ii) a tissue specific promoter that drives the expression of a transgene carried by said vector in said target cells, ~~wherein said adenoviral vector mediates increased gene delivery to said target cells and reduces transgene expression in non-target cells as compared to adenoviral vector without said targeting component and said tissue specific promoter.~~

Claim 2. (canceled)

Claim 3. (canceled)

Claim 4. (currently amended) The adenoviral vector of claim ~~3~~ 1, wherein said anti-Ad5 knob antibody is 1D6.14 and said anti-angiotensin converting enzyme antibody is 9B9.

Claim 5. (previously amended) The adenoviral vector of claim 4, wherein said tissue-specific promoter is vascular endothelial growth factor type 1 receptor promoter.

Claim 6. (original) The adenoviral vector of claim 5, wherein said target cells are pulmonary endothelial cells.

Claim 7. (currently amended) A method of ~~gene delivery~~ increasing targeting specificity to target cells and reducing transgene expression in non-target cells by adenoviral vector, comprising the step of:

contacting target cells with an adenoviral vector comprising (i) a targeting component that targets said vector to specific target cells, wherein said targeting component comprises a bi-specific ~~molecule that binds to~~ antibody conjugate linking a Fab fragment of an anti-Ad5 knob antibody with an anti-angiotensin converting enzyme antibody, wherein ~~the knob portion of~~ said ~~adenoviral vector and an~~ angiotensin converting enzyme molecule is expressed on said target cells, and (ii) a tissue-specific promoter that drives the expression of a transgene carried by said vector in said target cells, wherein said adenoviral vector has increased targeting specificity to said target cells and results in

reduced transgene expression in non-target cells as compared to adenoviral vector without said targeting component and said tissue-specific promoter.

Claim 8 (canceled)

Claim 9. (canceled)

Claim 10. (currently amended) The method of claim ~~9~~ 7, wherein said anti-Ad5 knob antibody is 1D6.14 and said anti-angiotensin converting enzyme antibody is 9B9.

Claim 11. (previously amended) The method of claim 10, wherein the tissue-specific promoter of said adenoviral vector is vascular endothelial growth factor type I receptor promoter.

Claim 12. (original) The method of claim 11, wherein the target cells are pulmonary endothelial cells.